

## The Knowledge Bank at The Ohio State University

### Ohio State Engineer

**Title:** Back Matter

**Issue Date:** May-1937

**Publisher:** Ohio State University, College of Engineering

**Citation:** Ohio State Engineer, vol. 20, no. 6 (May, 1937).

**URI:** <http://hdl.handle.net/1811/35414>

**Appears in Collections:** [Ohio State Engineer: Volume 20, no. 6 \(May, 1937\)](#)

# The Pixley Electric Supply Co.

129-133 E. Chestnut St.

*Electrical Supplies  
and  
Equipment*



## CAMBRIDGE ELECTROMETERS

● The application of Electrometers to the measurement of small electrical quantities has increased rapidly in recent years.

Among the more prominent Electrometer uses are researches in radio-activity, spectroscopic investigations and many uses in conjunction with photoelectric measurements.

The Compton Electrometer (illustrated) embodies the sound detail design and precision of construction necessary to fully realize the advantages of the Compton Modifications. It is one of several models manufactured by Cambridge.



### OTHER CAMBRIDGE PRODUCTS

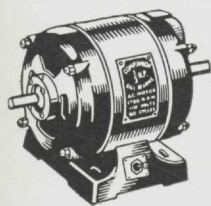
Moisture Indicators and Recorders    Physical Testing Instruments  
Surface Pyrometers    Laboratory Insts. for A.C. & D.C.  
Galvanometers    Engineering Instruments  
Gas Analysis Equipment    Physiological Instruments  
and other Mechanical and Electrical Instruments

**CAMBRIDGE**  
**INSTRUMENT CO INC**

3732 Grand Central Terminal, New York City

## SEARS IMPROVED 1937 LINE OF CRAFTSMAN and COMPANION TOOLS

The Finest and Most Advanced Line Ever Offered at Sensational Money Saving Prices—Your Selection of CRAFTSMAN or COMPANION Tools Will Assure You of the Utmost in QUALITY - - VALUE and SATISFACTION.



**1/3-H. P. Companion Motor**

Heavier field windings. Larger frame castings and bearing housing. Larger cooling ducts. Ball bearings, double shaft. 1750 R.P.M. Band, bolts and end blades finished in mirror polished chrome. Will stand up under long wear and steady service. Complete with built-in switch, cord and plug.

**\$8.90**



- |  |               |
|--|---------------|
| (B) Feeler Gauges—9 tapered leaves, .0015 to .015      | <b>75c</b>    |
| (C) Speed Indicator—Graduations show every revolution  | <b>98c</b>    |
| (F) Micrometer—Graduated to read by 1/1000 of an in.   | <b>\$7.50</b> |
| (H) Inside Calipers—Tempered crucible steel, Size 6    | <b>80c</b>    |
| (J) Spring Dividers—Accurately machined; 6 inch        | <b>80c</b>    |
| (K) Screw Pitch Gauge—22 pitches—9 to 40 for V-threads | <b>98c</b>    |
| (L)—Steel Rules—Tempered, accurate                     | <b>70c</b>    |
| (M) Combination Set—Craftsman Best                     | <b>\$4.95</b> |



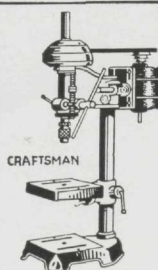
### WELDING OUTFIT



Set consists of heavy duty non-flash torch with 5 welding tips. All brass double gauge oxygen and acetylene regulator. Two 12½ ft. length heavy duty hose, torch lighter, welding goggles, 21 assorted welding rods, 1 can flux and welders' manual.

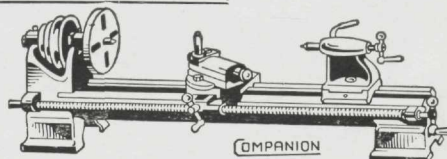
**\$42.00**

### BENCH DRILL



Four sets of S. K. F. ball bearings. 6 splined "automotive drive" type spindle. Full swiveling table. Genuine Jacobs Key chuck. Never before a drill of this quality at anywhere near this price!

**\$24.95**



### Metal Working Lathe

Fully equipped with "V" bed, taper take up on main bearing, No. 0 Morse taper centers, compound rest, lead screw operated from right end, and other essentials. 6" swing, 18" centers.

**\$10.95**

33 E. Long  
AD. 7191

**SEARS, ROEBUCK AND CO.**



# G-E Campus News



## FOR OUTSTANDING ACHIEVEMENT

February 26 was a big day in the lives of thirty-three G-E employees. These thirty-three were selected from the 60,000 persons in the Company's employ to receive the Charles A. Coffin Awards. There were fifteen factory men, twelve engineers, two commercial men, and four administrative and clerical employees. Twelve of the group are college graduates:

Roy T. Adolphson, University of Washington, '34; Eugene W. Boehne, Texas A & M, '26, and M. I. T., '28; Claude P. Hamilton, University of Nevada, '14; George H. Jump, Syracuse U., '10; Jack R. Meador, Texas A & M, '27 and '28; Harry E. Scarbrough, Georgia Tech., '19; Edward J. Schaefer, Johns Hopkins, '23; Alfred A. Thompson, University of California, '05; Carl Thumin, College of City of New York, '17, and M. I. T., '20; Harold E. Trekell, Kansas State, '31; Elmer J. Wade, University of Maine, '19; and Leo F. Worden, West Virginia University, '25.

Each year General Electric makes these awards to employees who have done outstanding work, as provided in the Charles A. Coffin Foundation established in 1922. Charles A. Coffin was organizer and first president of General Electric.



## "EXPERIMENTALLY—NOT ON PAPER"

Sixteen years or so ago, Dr. Willis R. Whitney, now Vice President in charge of General Electric research, sent a note to a research worker, suggesting experiments with a motor-generator set sealed

gastight and filled with hydrogen to see if the machine ran cooler, and more efficiently. The results of those experiments promoted the use of hydrogen in synchronous condensers and established the present trend toward the use of hydrogen in turbine-generators.

Windage loss in a rotating machine is reduced about 90 per cent and noise is greatly decreased because of the low density of hydrogen. Heat is carried away much more rapidly through the higher thermal conductivity of hydrogen. Resistance to damage due to corona within the machine is increased. These characteristics increase the electrical output for a given core size and reduce inspection and maintenance expense.

The construction of several hydrogen-cooled turbine-generating units is now going on in the Schenectady turbine shop—perhaps all because of that note written by Dr. Whitney so many years ago.



## CALLING ALL FIREBOATS

Fireboats are often away from their docks for several days at a time—not on a fishing trip, but fighting severe marine fires. The communication problem has been solved, however, for the fire-fighting sailors on the nine New York fireboats. General Electric engineers have installed a two-way radio system which will be in operation when the boats are out of telephonic contact with shore. This system will be an invaluable aid in expediting the handling of injured persons or those suffering from exposure.

In size, this system will be second only to the police-car system used in Boston. Two-way conversation will be possible, with no switching operations necessary to change from talking to listening. The equipment will include a remote-control, 500-watt, medium-frequency central transmitter for direct radio communication to all fireboats. The return part of the conversation from the boats will be transmitted by ultra-high-frequency radio to pickup receivers located at strategic points on the shore.

96-376DH

GENERAL  ELECTRIC